

2000 0000 0000

AFOEHL REPORT 90-198E000111LOD



AD-A231 513

## Defining Occupational Illnesses and Injuries

J. KEVIN GRAYSON, Capt, USAF, BSC

November 1990

Final Report

DTIC  
S ELECTED  
JAN 23 1991  
B D

Distribution is unlimited; approved for public release

AF Occupational and Environmental Health Laboratory (AFSC)  
Human Systems Division  
Brooks Air Force Base, Texas 78235-5501

## NOTICES

When Government drawings, specifications, or other data are used for any purpose other than a definitely related Government procurement operation, the Government incurs no responsibility or any obligation whatsoever. The fact that the Government may have formulated, or in any way supplied the drawing, specifications, or other data, is not to be regarded by implication, or otherwise, as in any manner licensing the holder or any other person or corporation; or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

The mention of trade names or commercial products in this publication is for illustration purposes and does not constitute endorsement or recommendation for use by the United States Air Force.

The Public Affairs Office has reviewed this report, and it is releasable to the National Technical Information Service, where it will be available to the general public, including foreign nations.

This report has been reviewed and is approved for publication.

Air Force installations may direct requests for copies of this report to: Air Force Occupational and Environmental Health Laboratory (AFOEHL) Library, Brooks AFB TX 78235-5501.

Other Government agencies and their contractors registered with the DTIC should direct requests for copies of this report to: Defense Technical Information Center (DTIC), Cameron Station, Alexandria VA 22304-6145.

Non-Government agencies may purchase copies of this report from: National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield VA 22161

  
J. KEVIN GRAYSON, Capt, USAF, BSC  
Environmental Epidemiologist

  
MARK H. STOKES, Colonel, USAF, BSC  
Chief, Health Surveillance Division

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188
<p>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</p>			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED	
	November 1990	Final	
4. TITLE AND SUBTITLE		5. FUNDING NUMBERS	
Defining Occupational Illnesses and Injuries			
6. AUTHOR(S)			
J. Kevin Grayson, Capt, USAF, BSC			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)		8. PERFORMING ORGANIZATION REPORT NUMBER	
AF Occupational and Environmental Health Laboratory Brooks AFB TX 78235-5501		AFOEHL Report 90-198 E000111LOD	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
Same as Blk 7			
11. SUPPLEMENTARY NOTES			
12a. DISTRIBUTION/AVAILABILITY STATEMENT		12b. DISTRIBUTION CODE	
Statement A. Unlimited, approved for public release			
13. ABSTRACT (Maximum 200 words)			
<p>This report covers the definitions of occupational illnesses and injuries. It provides a flow chart for classifying these events.</p>			
14. SUBJECT TERMS		15. NUMBER OF PAGES	
Occupational illnesses Occupational injuries		8	
Grayson		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	none
NSN 7540-01-280-3500			

(This page left blank)

## CONTENTS

	<b>Page</b>
I. Introduction	1
A. Purpose	1
B. Background	1
II. Definitions	1
A. General	1
B. Injuries	1
C. Illnesses	2
III. Procedures	3
IV. Conclusion	5
References	6
Distribution List	7

Accession For	
<input checked="" type="checkbox"/> NTIS GRA&I <input type="checkbox"/> DTIC TAB <input type="checkbox"/> Unannounced <input type="checkbox"/> Justification	
By _____	
Distribution/ _____	
Availability Codes	
Dist	Avail and/or Special
A-1	



(This page left blank)

## I. INTRODUCTION

A. Purpose: This technical report will discuss the definitions of occupational illnesses and injuries as established by the Occupational Safety and Health Administration (OSHA). A systematic method for classifying an occupational event as either an illness or an injury will be presented.

B. Background: The Air Force is required to collect occupational injury and illness data, to analyze collected data, and to establish preventive programs based upon any identified unsafe or unhealthy working conditions. Specific requirements exist for reporting every occupational death, every occupational illness, and some occupational injuries.

## II. DEFINITIONS

A. In general, determining whether an illness or injury has occurred depends upon the nature of the incident or exposure which caused the case, not the resulting condition in the employee. Injuries are caused by instantaneous events. If you can determine the specific date and time that an event occurred, then a case is most likely an injury. Basically anything else is considered an illness. In cases that are recognized following complications or recurrences, the classification should be determined by the inciting event. For example, a security policeman bitten by a dog would be considered an occupational injury. Later, after he develops a wound infection, he would still be considered an injury, since infection resulted from a single instantaneous event.

### B. Injuries:

1. Occupational injuries arise from an instantaneous work-related event. Adjectives often associated with such events are "sudden", "explosive", "abrupt", "unexpected", and "quick". Occupational injury reporting is only required in the following instances.

a. The case requires medical treatment beyond normal first aid. Such cases may:

- (1) Require treatment by trained medical personnel.
- (2) Impair normal bodily function.
- (3) Result in nonsuperficial damage.
- (4) Involve complications which require continued medical treatment.

b. The employee loses consciousness, regardless of the circumstances.

c. The employee is either physically or mentally unable to perform all or any part of his or her normal duties.

d. The employee experiences a restriction of motion which limits his or her ability to perform normal job duties.

e. The employee is transferred to another job because he or she is unable to perform normal duties.

2. OSHA also requires reporting of lost workday cases, which are defined as injuries that cause loss of time from work beyond the day in which it occurred. AFR 127-4 requires that a competent medical authority determine if a day should be lost. Lost duty days include annual leave, sick leave, leave without pay, compensatory time, and extra time off, for civilians, and days on quarters, in hospital, and convalescent leave for military personnel.

C. Illnesses:

1. OSHA defines an occupational illness as any abnormal condition or disorder, other than an occupational injury, caused by exposure to environmental factors related to employment. Causes can be chemical, physical, biological, or psychological. The exposure may occur via inhalation, absorption, ingestion, or through direct contact. The resulting condition can be either acute or chronic.

2. Abnormal occupational physical examination findings are a frequent problem, but they aren't necessarily reportable. Abnormal laboratory test results should only be reported if they exceed a specific OSHA standard. Standards exist for lead and benzene. Other abnormal findings from an occupational physical are reportable as illnesses. Such findings include abnormal chest x-rays, neurological examinations, etc.

3. Environmental Health Services personnel frequently have questions regarding the following illnesses.

a. Hearing loss. Noise induced hearing loss is a reportable occupational illness. OSHA has mandated that any standard threshold shift be reported. Standard threshold shifts occur when there is an average loss of ten or more dB over two, three, and four kilohertz.

b. Heart attacks. Heart attacks and other cardiovascular events are reported as occupational illnesses, if it can be demonstrated that they are work related. Heart attacks occurring outside the workplace may be considered occupational illnesses, provided that suitable exposures in the workplace have been demonstrated.

c. Emotional disorders. Emotional disorders can be classified as occupational illnesses, provided work relatedness is established.

d. Heat stress cases. Heat stress cases are reportable as occupational illnesses. The key is that the inciting cause is not instantaneous.

e. Back disorders. Back disorders and related problems are classified by OSHA as occupational injuries. Their reasoning is that back injuries almost always result from some precipitating event, whether that event can be identified or not. Although some cases may seem to be illnesses, OSHA prefers to classify them as injuries in order to keep the recordkeeping simple.

f. Dermatitis. The key to determining if a dermatitis is an illness depends on the exposure. If contact with the chemical was instantaneous, such as a splash, then an injury occurred. Otherwise, classify the case as an illness.

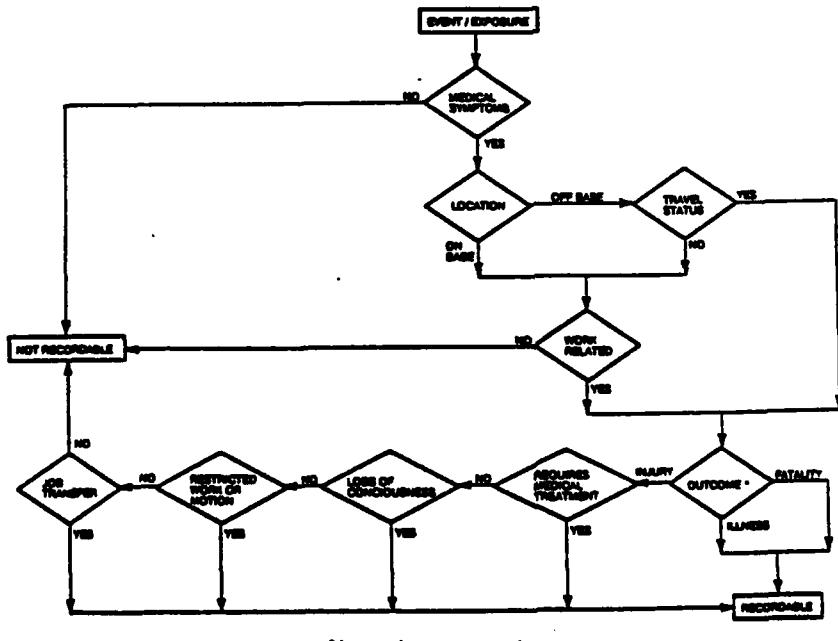
### III. PROCEDURES

A. The basic format for reporting occupational illnesses and injuries is as follows.

1. Determine if a case occurred. Did the patient experience any symptoms?
2. Determine the location in which the case occurred. Was it on base or off base?
3. Determine that the case was work related.
4. Determine if the case was a fatality, an injury, or an illness. Fatalities and illnesses are automatically reportable. If it was an injury, decide if it is a reportable case.

B. The figure below is a flow chart describing these procedures.

Occupational Illness/Injury Determination Flowchart.



\* Injury = Instantaneous event.

C. Determining if a case occurred should be a straight forward matter. Typical sources of case reports are worker's compensation claims filed by civilian employees, admission logs, provider referrals, abnormal physical exam findings, abnormal laboratory studies, etc. The key to determining whether a case occurred is if the patient experienced any symptoms. If there were no symptoms, the case is not reportable. Do not consider such extraneous information as worker accountability or whether the incident was preventable. Also, medical verification is not always required for a case to be reported, if the workers claim is well supported by other evidence. However, if the cause of an injury or illness is in doubt, and cannot be verified, then the event should not be reported. Verification of injury and illness claims by civilian workers is particularly important when they are diagnosed by private physicians. In these cases, the medical records of the patient should be reviewed by a flight surgeon or occupational medicine consultant, who determines if a valid injury or illness has occurred.

D. All work related injuries and illnesses are potentially reportable, regardless of whether or not an employee was performing his primary duties. Personnel who are on TDY status are also covered, including those who are enroute to and from their temporary duty station. Personnel on TDY status are considered to be on work status all the time they spend engaged in official business. Do not record a TDY event if it occurs during normal living activities such as eating, sleeping, or recreation.

E. Reporting exposure to toxic substances is not required by OSHA. These cases should only be reported if they result in an injury or illness.

F. There is no statute of limitations on reporting occupational illnesses and injuries. So long as an individual was actively employed when the injury or accident occurred, their case is reportable. However, practically speaking, there may be a limit based upon the retention period for employee records. Cases should be recorded in the year in which they are discovered.

G. Preventive actions are not reportable. Moving a worker to a new assignment to avoid an exposure is not reportable, provided no illness or injury has occurred. By the same token, checkups following an exposure are not reportable. Vaccinations, even in the face of an outbreak, are not reportable in that they are preventive actions.

H. Pre-existing or recurring conditions often cause confusion. These should not influence reportability, provided that a new exposure or incident has occurred. Injuries are clearer in this respect, since they can usually be traced to a single episode. Illnesses are less obvious, but again, the key is whether a new exposure has occurred or not.

I. Since the onset of an occupational illness in particular may be insidious, establishing work relatedness is important. The following factors should be considered when reviewing a potential occupational illness case.

1. Has the presence of an illness clearly been established?
2. Could the illness be caused by suspected agents or conditions in the workplace?

3. Are the suspected agents or conditions present (or have they been present) in the workplace?

4. Was the ill employee exposed?

5. Were exposures sufficient to result in an illness?

6. Could the illness have resulted from nonoccupational exposure?

J. If an injury or illness occurs on base, then work relatedness can be assumed. However, to be recordable, the illness or injury must be directly work related. The employee's status must be that of a worker, not a member of the general public. For example, an employee made ill by chemical fumes while filling his POV with gas would not be considered an occupational illness.

K. Off base events are reportable provided they are work related.

#### IV. CONCLUSION

A. The key to deciding whether an occupational event is reportable rests on the answers to the following questions.

1. Did the patient experience symptoms?

2. Did the event occur while the patient was on travel status?

3. Was the patient involved in work related activity?

4. Did a fatality or illness occur?

B. Differentiating injuries from illnesses depends upon the nature of the events which caused the case. The effect of the event upon the patient is not a factor in the determination.

C. Injuries are caused by instantaneous events. Illnesses are any cases not classified as an injury.

## REFERENCES

1. AFR 127-4, Investigating And Reporting US Air Force Mishaps (03 Jan 90).
2. AFR 161-33, The Aerospace Medicine Program (06 Jan 84).
3. "Recordkeeping Guidelines for Occupational Injuries and Illnesses", U.S. Department of Labor, Bureau of Labor Statistics (September 1986).
4. "OSHA Publication 2014, Recordkeeping and Reporting Guidelines for Federal Agencies", U.S. Department of Labor, Occupational Safety and Health Administration (1986).
5. Title 29, Code of Federal Regulations, Part 1960.66, Basic Program Elements  
For Federal Employee Occupational Safety And Health Programs And Related Matters. Subpart I--Recordkeeping and Reporting Requirements.

**DISTRIBUTION LIST**

	<b>Copies</b>
7100 CSW Med Cen/SGPM APO New York 09220-5300	1
Det 1, AFOEHL APO San Francisco 96274-5000	1
HQ USAF/SGPA Bolling AFB DC 20332-6188	1
HQ AFSC/SGPM Andrews AFB DC 20334-5000	1
USAFSAM/TSK/ED/EDH/EDZ Brooks AFB TX 78235-5000	1 ea
HQ HSD/XA Brooks AFB TX 78235-5000	1
Defense Technical Information Center (DTIC) Cameron Station Alexandria VA 22304-6145	2
HQ AAC/SGPM Elmendorf AFB AK 99506-5300	1
HQ AFLC/SGBE Wright-Patterson AFB OH 45433-5001	1
HQ AFRES/SGB Robins AFB GA 31098-6001	1
HQ ATC/SGPM Randolph AFB TX 78150-5001	1
HQ MAC/SGPM Scott AFB IL 62225-5001	1
HQ ANGSC/SGB Andrews AFB DC 20331-6008	1
HQ SAC/SGPM Offutt AFB NE 68113-5001	1
HQ AU/SGPM Maxwell AFB AL 36112-5304	1

DISTRIBUTION LIST CONT'D

	Copies
HQ TAC/SGPM Langley AFB VA 23665-5001	1
HQ USAF Academy/SGPM Colorado Springs CO 80840-5470	1
HQ AFSPACECOM/SGPM Peterson AFB CO 80914-5001	1
HQ USAFE/SGPM APO New York 09094-5001	1
HQ PACAF/SGPM Hickam AFB HI 96853-5001	1